

Rejection Under 35 U.S.C. §102(a) (Thompson et al., WO99/20640)

Claims 1-9, 15-19, 25-27, and 40 were rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by Thompson et al. (WO99/20670, April 29, 1999). Applicants respectfully traverse the rejection as applied and as it might be applied to the currently pending claims.

Applicants submit herewith a declaration by the present inventors stating that before April 29, 1999 they invented a microarray comprising a surface silanized with a silane in toluene in the absence of acetone or an alcohol, a target molecule, and optionally a linker, wherein the target molecule is attached to the surface via the silane or, where a linker is present, via the linker; and a method of making a microarray comprising silanizing the surface with a silane in toluene in the absence of acetone or an alcohol.

Exhibit A, a computer printout, submitted with the declaration (date obscured) shows that prior to April 29, 1999, the inventors had conceived and reduced to practice a microarray, and a method of making it, wherein the microarray has a surface silanized in toluene and without acetone or alcohol.

As a result, Applicants have overcome the rejection under Section 102(a) by pointing out that Applicants had invented the claimed microarray and method before the priority date of Thompson et al. WO99/20640. Withdrawal of the rejection and allowance of the claims is respectfully requested.

Rejection Under 35 U.S.C. §103(a) (Thompson et al., WO99/20640)

Claims 1-9, 15-19, 25-27, and 30-40 were rejected under 35 U.S.C. § 103(a) as allegedly being *prima facie* obvious over Thompson et al. (WO99/20670, April 29, 1999). Applicants respectfully traverse the rejection as applied and as it might be applied to the currently pending claims.

As discussed above, the present inventors have submitted a declaration stating and showing that they invented the claimed subject matter before the priority date of the Thompson et al. WO99/20640 reference. As a result, the reference is no longer applicable under Section 103(a) and the rejection under that section should be withdrawn. Withdrawal of the rejection and allowance of the claims is respectfully requested.

Rejection Under 35 U.S.C. §103(a) (Thompson et al. (*supra*), Dintzis et al. (US6,340,460B1))

Claims 1-19 and 25-40 were rejected under 35 U.S.C. § 103(a) as allegedly being *prima facie* obvious over Thompson et al. (*supra*) in view of Dintzis et al. (US6,340,460B1). Applicants respectfully traverse the rejection as applied and as it might be applied to the currently pending claims.

As discussed above, the present inventors have submitted a declaration stating and showing that they invented the claimed subject matter before the priority date of the Thompson et al. WO99/20640 reference. As a result, the Thompson et al. reference is no longer applicable under Section 103(a), the combination of Thompson et al. and Dintzis et al. is no longer applicable, and Dintzis et al. does not stand alone to support a rejection. As a result, the rejection under that section should be withdrawn. Withdrawal of the rejection and allowance of the claims is respectfully requested.

Rejection Under 35 U.S.C. §103(a) (Thompson et al. (*supra*), Friend et al. (US6,324,479B1))

Claims 1-9, 15-21, 25-27, and 30-40 were rejected under 35 U.S.C. § 103(a) as allegedly being *prima facie* obvious over Thompson et al. (*supra*) in view of Friend et al. (US6,324,479B1). Applicants respectfully traverse the rejection as applied and as it might be applied to the currently pending claims.

As discussed above, the present inventors have submitted a declaration stating and showing that they invented the claimed subject matter before the priority date of the Thompson et al. WO99/20640 reference. As a result, the Thompson et al. reference is no longer applicable under Section 103(a), the combination of Thompson et al. and Friend et al. is no longer applicable, and Friend et al. does not stand alone to support a rejection. As a result, the rejection under that section should be withdrawn. Withdrawal of the rejection and allowance of the claims is respectfully requested.

Rejection Under 35 U.S.C. §103(a) (Thompson et al., Dintzis et al., and Friend et al. (*supra*))

Claims 1-19 and 22-40 were rejected under 35 U.S.C. § 103(a) as allegedly being *prima facie* obvious over Thompson et al. (*supra*) in view of Dintzis et al. (*supra*) and further in view of Friend (*supra*). Applicants respectfully traverse the rejection as applied and as it might be applied to the currently pending claims.

As discussed above, the present inventors have submitted a declaration stating and showing that they invented the claimed subject matter before the priority date of the Thompson et al. WO99/20640 reference. As a result, the Thompson et al. reference is no longer applicable under Section 103(a), the combination of Thompson et al., Dintzis et al., and Friend et al. is no longer applicable, the combination of Dintzis et al. and Friend et al. is not applicable, and neither stands alone to support a rejection. As a result, the rejection under that section should be withdrawn. Withdrawal of the rejection and allowance of the claims is respectfully requested.

SUMMARY

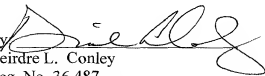
Claims 1-40 were rejected. Applicants have overcome the rejections under 35 U.S.C. § 102(a) over Thompson and § 103(a) over Thompson et al. alone or in combinations with Dintzis et al. and/or Friend et al. by submitting the attached declaration under 37 C.F.R. § 1.131 in which the inventors state and show that they invented the claimed microarray before April 29, 1999. Having overcome the rejections, pending claims 1-40 are in condition for allowance, which action is respectfully requested.

If in the opinion of the Examiner, a **telephone conference** would expedite the prosecution of the subject application, the Examiner is **strongly encouraged** to call the undersigned at the number indicated below.

This response/amendment is submitted with a transmittal letter; a petition and fees for a three-month extension of time; a petition and fees to correct inventorship under 37 CFR § 1.48(b) and consent of assignee; and a declaration under 37 CFR § 1.131 (including Exhibit A). In the unlikely event that this document is separated from the transmittal letter, applicants petition the Commissioner to authorize charging our Deposit Account 07-0630 for any fees required or credits due and any extensions of time necessary to maintain the pendency of this application.

Respectfully submitted,  
GENENTECH, INC.

Date: February 12, 2003

By   
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PATENT TRADEMARK OFFICE

**VERSION WITH MARKINGS TO SHOW CHANGES MADE****In the Specification:**

The specification has been amended as follows, wherein strikeout in brackets [00] indicates deleted terminology and underlining [00] indicates added information terminology.

Please replace the paragraph beginning at page 15, line 5, with the following rewritten paragraph:

As used herein, the phrase "pre-disease state" refers to an abnormal state of a cell or a tissue, where the abnormal state in a living animal or plant may not be detectable. The pre-disease state in the animal does, however, predispose the animal to eventual development of a disease state. Non-limiting examples of a pre-disease state include abnormal levels of genetic material, such as gene copy numbers, abnormal sequences of genetic material, such as disease-associated polymorphisms, changes in gene expression that frequently precede a disease state, as well as genetic profiling of tumor subtypes (see, for example, Hacia, J.G., Nature Genetics 21(Suppl):42-47 (1999); Heiskanen, M.A. et al., Cancer Research 60:[41-46][799-802] (2000); Pollack, J. et al., Nature Genetics 23:41-46 (1999); DeRisij, et al., Nature Genetics 14:457-460 (1996); Berns, A., Nature 403:491-492 (2000); and Alizadeh, A.A. et al., Nature 403:503-511 (2000); Marx, J., Science 289:1670-1672 (2000)).

Please replace the paragraph beginning at page 18, line 20, with the following rewritten paragraph:

The technique of laser-capture microdissection (LCM) is preferred for cell collection (see, for example, Emmert-Buck, M.R. et al., Science 274:998-1001 (1996); Simone, N.L. et al., Trends in Genetics 14:272-276 (1998); Glasow, A. et al., Endocrine Research 24:857-862 (1998); WO 0028[0]92 (priority date November 5, 1998); Luo, L. et al., Nature Medicine 5:117-122 (1999); and Arcturus Engineering, Inc., www.arctur.com, last visited March 20, 2001). LCM was developed to provide a method for obtaining pure populations of cells from specific microscopic regions of tissue sections under direct visualization (Simone, N.L. et al., supra). For the purposes of the invention and the present examples, the cells of interest were transferred to a

polymer film activated by laser pulses, a technique that maintained the integrity of the RNA, DNA, and proteins of the collected cells. The transferred cells were used for the isolation of total cellular RNA for subsequent use in the preparation of control nucleic acid probes and test nucleic acid probes. The LCM device used for the examples disclosed here was from Arcturus Engineering, Inc., (Mountain View, CA, USA).